## Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

**List of Claims:**

1. (Currently Amended) An intermittent aberrant component activity tracking method comprising:

continuously monitoring a component, the component comprising an encoder, wherein servo specifications of the encoder require a tolerance of ±0.1% to ±5%;

sensing a characteristic of the component;

performing real time statistical calculations using sensed values of the characteristic of the component; and

storing, in a memory, data including results of the calculations indicative of a fault,

wherein each data point of the data is put into a range bucket, and

wherein the data are represented by a counter rather than a real encoder value.

2. (Original) The method of claim 1 further comprising providing for retrieval of the data.

3. (Original) The method of claim 1 further comprising uploading the data to a main controller at regular intervals.

4. (Canceled)

5. (Previously Amended) The method of claim 1 wherein the sensed characteristic of the encoder is its timing.

6. (Canceled)

7. (Original) The method of claim 1 wherein the component is a sensor.

8. (Original) The method of claim 1 further comprising using a serial control bus to retrieve the data in real time.

9. (Canceled)

10. (Currently Amended) The method of claim [9]1 further including incrementing an event count at a respective location when a data point falls into a range bucket.

11. (Canceled)

12. (Original) The method of claim 1 wherein the main controller analyzes the data as necessary.

13. (Original) The method of claim 1 wherein only data values outside of normal run limits would be recorded and studied

14. (Canceled)

15. (Canceled)

16. (Canceled)

17. (Canceled)

18. (Canceled)

19. (Canceled)

20. (Canceled)

21. (Canceled)

22. (Canceled)

23. (Canceled)

24. (Canceled)

25. (Currently Amended) A real time encoder frequency excursion recording method that can record excursions in real time on a product printed wire board assembly (PWBA) in an operating environment, the method comprising:

continuously monitoring the encoder timing, wherein servo specifications of the encoder require a tolerance of ±0.1% to ±5%;

doing real time statistical calculations; and

storing the results of the calculations indicative of a fault in a memory for retrieval by service personnel or for uploading to the main controller at regular intervals during the run process,

wherein each data point of the results is put into a range bucket, and

wherein the data are represented by a counter rather than a real encoder value.

26. (Canceled)

27. (Original) The method of claim 25 wherein only results values outside of normal run limits would be recorded and studied.

28. (Original) The method of claim 25 further comprising using a serial control bus to retrieve the data in real time.

29. (Canceled)

30. (Currently Amended) The method of claim [29]25 further including incrementing an event count at a respective location when a data point falls into a range bucket.

31. (Canceled)

32. (Original) The method of claim 25 wherein the main controller analyzes the data as necessary.